

## SOUTH AMERICA ENVIRONMENT, SCIENCE, TECHNOLOGY, AND HEALTH NEWSLETTER

### Peru: Opening Remarks of the Low-Carbon Sustainable Economies, Perspectives for South America and Civ-Mil Collaboration Conference, August 17, 2010

By Indran Amirthanayagam

We have passed the turning point, a leading environmentalist told me, but we cannot say so to the public. We must put on a brave face before melting ice caps, fishless seas, giant jellyfish close to shore, oil-streaked pelicans, and innovate; put on our thinking caps and develop marine protected areas and commercialize alternatives to the internal combustion engine.

We are living in times of great hope and withering despair. Towns and states across the United States have begun to adopt carbon taxes. The Environmental Protection Agency has ruled that greenhouse gases are pollutants and must be regulated. We are moving ahead by inches and feet. We need to meet President Obama's pledge to reduce greenhouse gas emissions 17 percent by 2020 compared to 2005 levels.

Climate science, our own weather experiences—these hottest summers and freak, cold winters in unexpected territories—the Asian tsunami, the great earthquakes of 2009 in Haiti and Chile, the floods in Pakistan that have displaced 20 million people, Hurricane Katrina—have been our guides, telling us that something is rotten in the state of Earth. The inviting blue globe, seen from space in the 1960s has become smeared with brown blotches in 2010. Deserts are growing without cease. Then, on top of it all, we must cope with the impermanence of the Sun, which like all stars will explode one day, flooding our planet with darkness, sealing its death in the absence of light.

So what about economy—making do with less, extracting more value from what we produce, recycling our waste? We still have 3 billion fruitful years before the Sun flashes out. If we can achieve President Obama's aim of getting a human to orbit Mars by 2035, we can surely develop the capacity to emigrate to a younger planet fed by an infant Sun. But what about here and now?

How can we reduce the carbon intensity—or if you wish to include other greenhouse gases—the climate intensity of our economies? How can we encourage more local food, eliminating transportation costs? How can we weatherize our homes, installing energy efficient light bulbs and heat-trapping windows? Should we paint all our roofs white while installing solar panels to heat water and provide light? How about the giant wind farms? What about capturing the energy poured by the Sun into the Sahara and energizing the whole of Europe with its charge?

We know now about electric and hydrogen cars, about great, untapped lithium deposits in Bolivia. What does a low carbon economy mean for Peru as opposed to the United States, Argentina as opposed to Surinam? We represent American states, sharing human and ecological capital. What green investments can we make to live sustainably, to reduce our footprint so much that it cannot be perceived by the most powerful camera in the sky?

Let us be bold in this pioneering conference that brings together interested citizens from throughout South America as well as the United States. What can we achieve in these two days? What experiences and perspectives can we share that will help illuminate our next steps forward? How can civilian and military professionals work together better to address extreme weather events caused by climate change?

I invite you as Director of the State Department's South American Regional Environment Office to consider us a first step in seeking alliances with various U.S. government departments and technical agencies, with the National Oceanic Atmospheric Association, US Geological Survey, National Science Foundation, Environmental Protection Agency, Department of the Interior, the U.S. Forestry Service, to name just a few. Let us work together in the Americas to establish low-carbon intensive economies, to leave green and blue wealth to our children and to our children's children. Let us begin today preparing the earth for the next three billion years while we develop the means to find a new planet with its star waiting to host our ships.

### Conclusions from the Low-Carbon Sustainable Economies, Perspectives for South America and Civ-Mil Collaboration Conference, August 18, 2010

By Indran Amirthanayagam

Our planet is a complex system with many variables.

Our task is to identify variables and create models for different scenarios.

Our purpose : highlight how civil and military authorities can cooperate in responding to the scenarios.

There are transversal themes:

- combating greenhouse gas emissions,
- conserving biodiversity,
- coordinating relief efforts in response to extreme weather events,
- developing shared immigration policies to account for climate refugees,
- ensuring access to potable water,
- ensuring security of food supply.

Now what can one country learn from the experience of another? Let us share best practices which implies that we must know what they are.

In this meeting we have been informed of some of these practices. We have also debated who is responsible historically and today for greenhouse gas emissions.

The most important conclusion is that no individual or country can turn its back on global warming. We are all affected and each one of us needs to respond with concrete mitigation and adaptation actions, ideally ones that satisfy both necessities at the same time.

The conference was called Low Carbon Sustainable Economies, Perspectives from South America and Civilian-Military Cooperation.

We did not get into the heart of the questions : what is a low carbon economy ? What does it look like ? We need to go further into these questions the next time we meet.

But we have started to talk and have advanced our understanding of each other's challenges in South and North America. Let us try hard to synthesize what we have heard here into a few action items.

And let us promote our understanding of these issues among our South and North American publics. Our future belongs literally to our children. Give them all we know to help them rebuild what we started to destroy.

The first naturalists were the big game hunters. They realized that they needed a renewable resource.

Let us go abroad and spread the message of sustainable development, of less climate intensive economies.

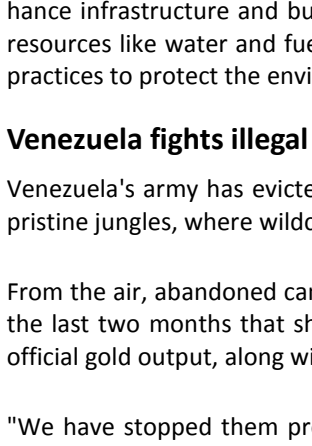
### Colombia: SOUTHAM Climate Change Conference held in Bogotá on July 26-27, 2010

By LTC John Buse USAF

The conference began Monday July 26 with opening remarks by Ms. Karime Hassan Arias, the Director of Sector Studies, John Dew, the United Kingdom Ambassador to Colombia, Col Cintron, the Southern Command Engineer, and retired Vice Admiral Dennis McGinn, a member of the CNA Military Advisory Board. The initial session began by working with a set of presentations that surveyed the anticipated climate change impacts for South America & their wide ranging effects in terms of security, describing the complexity of the challenges that climate change poses, especially due to the transnational & global character of these phenomena. Different countries and different regions of the world will be and are being affected in different ways, and on different time scales.

Changes in weather & precipitation patterns will increase the frequency of storms, floods, & droughts, with negative effects to the economy and migration, increasing the demand for disaster response & social assistance. Glacial melt & reduction of high altitude grasslands "paramos" will create greater tendency for flooding in the short-term, then in the long term, water shortages that pose extreme difficulties for many cities such as La Paz, Lima, and Bogota as well as affecting agriculture & hydro-electric energy.

They called for a much greater effort to understand these problems at the legal levels, and internationally to recognize there are multiple effects & the relations among those threats. What is needed is a much greater sharing of national experiences & information & more international collaboration in understanding & addressing the security impacts of climate change. The presenters stressed that although national militaries may be more keenly aware, in many cases, of the security implications because it affects their missions & operations, governments must recognize & take the lead because the lack of an adequate response will negatively impact state legitimacy.



In the afternoon, we learned from our many distinguished guests representing the armed forces of Colombia, Chile, and Peru, about their nation's recent experiences with climate change and its human & security impacts. Panelists included CAPT Julian Augusto Reyna Moreno, Executive secretary of the Colombian Commission for the Ocean, Lt Col Jorge Gil Bravo, Chief of the Department of Risk Prevention and Environment of the Chilean Army, and Major General Hernan Valdivia Misad, the Chief of Education of the Joint Armed Forces of Peru. What was striking was the diversity of those impacts and their effects on the operations & planning of those armed forces.

In Colombia, marines must adapt to rivers that are drying up at different times & for longer periods, making riverine patrol operations impossible.

In Chile, the experience of the recent earthquake has overhauled the country's recognition of the threats from environmental change & the need for greater communication between civilian agencies, the armed forces, and the public on disasters and disaster response.

In Peru, the government and its military face multiple threats, simultaneously, across its various geographic regions that are already having tragic impacts on some of the country's poorest communities. As in Colombia, climate impacts feed into a long-standing vicious cycle, in which poverty, agricultural crises, drug trafficking, and terrorism, are all inter-related.

It is to this issue, or set of issues, that was the focus of the Tuesday morning session. That panel introduced into our discussion the perspectives of Colombian government agencies and of multi lateral, regional organizations that have key roles in addressing the security impacts from climate change. They described how their institutions have created frameworks and agreements required to make coordination to the impacts of climate change effective and sustainable.

The moderator, Julie Leonard, a USAID/OFDA representative from Costa Rica has extensive experience in development, humanitarian assistance and disaster response as well as several non-governmental organizations. The panel was composed of representatives of the Colombian Disaster Response Agency, the Chilean Ministry of Defense, the United Nations Information Center in Bogota, the Colombian International Red Cross, and a Colombian climate change representative to the UNDP.

A follow-up discussion was moderated by Marcela Ramirez of the US Army War College to develop a coordinated strategy for best practices to improve interagency coordination and coordinated planning.

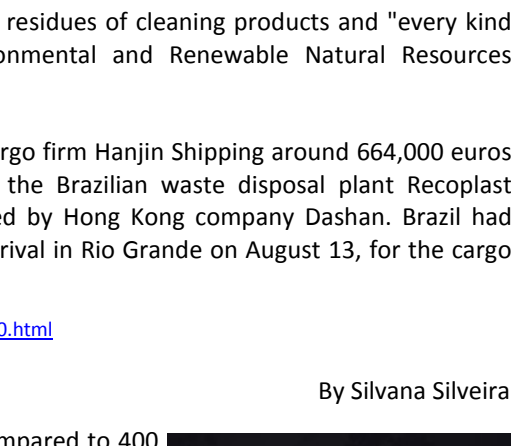
After lunch, the participants turned to the collective task of defining, out of all that we have learned throughout the event, an action plan. The action plan developed defined how we as individuals, and representatives of our respective armed forces, agencies, and institutions, as a group can work together to improve our understanding of the issues of our strengths, weaknesses and opportunities in dealing with them. The plan defined how to coordinate an effective strategy for capacity building and cooperation to prevent their worst case manifestations.

The concluding remarks were made by Mr. Alejandro Arbelaez, Vice Minister for Strategy and Planning from the Colombian Ministry of Defense.

### Climate Change: A threat multiplier but also an Opportunity

By Adriana Quevedo

Climate Change (CC) is a threat multiplier, that is, it will make climate and atmospheric phenomena more intense and frequent, provoking human migrations due to natural disasters and their economic consequences. Damages to agriculture will have various impacts depending on crops. This will create conditions for the illicit activities to develop, and more pressure over military operations and resources. In this context, countries like Colombia, Bolivia, and Peru, would see that coca crops -due to their weather resistance- would be an immediate substitute for more affected products.



Politically, state stability can be seriously affected because of food scarcity. At an international level, the impact of CC is observed in the relevance that certain environmental resources are acquiring, whose protection is generating some concerns among regional governments. For instance, Brazil has raised the strategic importance of controlling the Amazon Basin, and has created the SIVAM (Amazon Surveillance System per initials in Spanish) as a mean of control. Venezuela has stressed the importance of Orinoco Basin, and other countries and large corporations are buying large extensions of land.

Roman Ortiz, from Universidad de los Andes of Bogota, emphasized that effects will be particularly dramatic when we find inefficient governments upon implementing resource management systems. When this will occur, conflict possibility will increase both, internally and externally.

Studies show that in the Caribbean, for example, CC impact estimations, including not only more intense and frequent storms, but also increase of sea level and droughts. In the Andes, it is foreseen a decrease in hydrologic resources in mountain areas, increase of the sea level and local aridification.

All this involves that military forces have to be prepared to attend effectively all the emergencies, and develop efficient mechanisms to coordinate with civil authorities -having into consideration limited public funding, as it use to happen in South American countries-, in relation to large fluxes of refugees, social and economic crises, which could generate tensions between ethnic groups or local populations. This can occur even at an international level!!!

Haiti earthquake occurred on January 12, 2010 had devastating effects, also served as a disaster-response lab for all Latin America and the Caribbean, demonstrating how military forces and civil organizations can display joint actions to face problems caused by a catastrophic event. Efforts for Haiti reconstruction are using renewable energy (solar, eolic, biofuels) and with this aim they are developing new energy infrastructure. They are introducing new housing construction codes, relocating houses, public buildings and hospital in safe zones. Sustainable agriculture is being promoted, as well.

For Pablo Reyes, from the Centre of Latin American Studies in Bogota, CC should be considered an Opportunity. By identifying challenges posed by CC, we can take advantage of the opportunity to enhance infrastructure and buildings in general, reduce emissions, seek a more efficient use of natural resources like water and fuels. However, the most important is educate people on CC risks and good practices to protect the environment.

### Venezuela fights illegal gold camps deep in jungle

By Diego Ore

Venezuela's army has evicted thousands of people from makeshift towns in one of the world's most pristine jungles, where wildcat miners lured by high gold prices rip up the land for the precious metal.

From the air, abandoned camps look like yellow scars in the vast forest canopy after an offensive over the last two months that shut hundreds of mines, which the army says operated twice Venezuela's official gold output, along with other minerals.

"We have stopped them producing of 1 tonne of gold and 5,000 karats of diamonds every month," General Henry Rangel, said during a recent visit to a camp, only a few minutes flight from the world's tallest waterfall, Angel Falls.

The camp, called El Triunfo, was littered with empty barrels of the fuel used to power the miners' powerful water pumps, which churn up topsoil in the search for gold.

Rangel heads the operation against illegal mining in the Caura River basin, known for its biological diversity, and where jungle camps speedily spring up with hotels, bars and other services after a gold strike.

"When a gold rush starts, brothels open up even before food stores," said Alfredo Villanueva, a wild-cat mining leader.

Earlier in June, soldiers found 1,000 miners working in one such camp, where they had built a church, a brothel and a barbershop, and light aircraft flew in and out with supplies. Now only soldiers and stray dogs occupy it.

"We have even taken apart aviation workshops and heavy machinery," said defending Minister Carlos Mata, who expressed surprise at the sophistication of El Triunfo camp, one of 357 destroyed by the army, which has evicted 10,000 people.

The socialist government of President Hugo Chavez has for years swung between tolerating illegal mining and trying to end it. In 2006, several miners died in clashes with troops.

Read more at <http://www.alertnet.org/thenews/newsdesk/N01257113.htm>

### Ecuador signs deal not to drill in the Amazon

By Gonzalo Ortiz

"The trust fund that we have just established is historic, not only for Ecuador but for the entire world," said Rebeca Grynspan, associate administrator of the United Nations Development Programme (UNDP), after signing an agreement with the government of Rafael Correa to leave 846 million barrels of oil under the ground in a pristine Amazon jungle wildlife reserve.

In the groundbreaking pact, the Ecuadorean government agreed to refrain from tapping three major oilfields in the Yasuni National Park for at least a decade.

The 846 million barrels of proven reserves in the Ishpingo, Tambococha and Tiputini (ITT) fields account for 20 percent of Ecuador's total reserves.

In return for leaving the oilfields in the ITT section of the park untapped, Ecuador would be paid 3.6 billion dollars, equivalent to half of the expected earnings from the oil.

The trust fund will be administered by the UNDP, with the participation of the Ecuadorean state, civil society and representatives of the donors. The funds would be left untouched, and would serve as a guarantee in case the oil was ever exploited.

The project, thought up by environmental organisations a decade ago, was officially proposed to the U.N. general assembly by President Correa in September 2007.

But it has had to wind its way through a series of commissions, and along the way several high-level officials were laid off or quit, including former foreign minister Fander Falconi.

Read more at <http://ipsnews.net/news.asp?idnews=52378>

### Brazil seizes illegal shipment of household waste from Hamburg

Brazil's environmental authorities reacted with outrage after the discovery of contaminated household waste in a shipment from Germany. The cargo was falsely declared as legitimate goods for recycling.

22 tonnes of refuse illegally shipped from the north German port of Hamburg to Brazil is returning to Germany.

Brazilian officials seized the cargo after it arrived in the southern port of Rio Grande last week. The shipment was documented as plastics from the Czech Republic, to be recycled and sold in South America.

Officials instead found household waste, used diapers, residues of cleaning products and "every kind of contaminated refuse," Brazil's Institute of Environmental and Renewable Natural Resources (IBAMA) said.

The environmental authority fined the South Korean cargo firm Hanjin Shipping around 664,000 euros (1.5 million Brazilian reais or \$855,000) and docked the Brazilian waste disposal plant Recoplast 177,000 euros. The export from Germany was handled by Hong Kong company Dashan. Brazil had given a ten-day deadline, counting from the refuse's arrival in Rio Grande on August 13, for the cargo to be shipped back to Germany.

Read more at [http://www.dw-world.de/dw/article/0\\_5922566.00.html](http://www.dw-world.de/dw/article/0_5922566.00.html)

### Uruguay Tries to Solve Its Forestry Puzzle

By Silvana Silveira

"A Uruguayan consumes 40 kilos of paper per year, compared to 400 kilos consumed by someone in Finland. We produce wood pulp to feed foreign consumption," says sociologist Maria Selva Ortiz, representative of the environmental group Redes-Friends of the Earth Uruguay.

"But the ecological baggage of that consumption is the damage to our water, our soil, our farmers," she told Tierramérica.

Behind the hundreds of thousands of tonnes of timber produced as raw material for the paper industry, there is a landscape of damaged roads, extensive crop monoculture, exhausted water resources and degraded soil, according to Uruguayan ecologists.

In Ortiz's view, industrial forest expansion displaces small farmers, foreignises agricultural land, and damages a culture of food production in this small South American nation.

To portray the transformation of Uruguay's nature map between 1975 and 2009 is one of the purposes of the report "Latin America and the Caribbean: Atlas of Our Changing Environment," produced by the United Nations Environment Programme (UNEP), based on satellite images taken over the course of the last three decades.

The initial findings of the study were presented at the 17th Meeting of the Forum of Environment Ministers of Latin America and the Caribbean, held in late April in Panama.

In Uruguay, known for its extensive plains as part of the South American Pampa, the Atlas shows that the total forested area grew from 45,000 hectares in 1990 to 900,000 hectares in 2009. That changed led to a loss in biodiversity, shifts in the water cycle, and degradation of soils, according to UNEP.



Read more at <http://www.ipsnews.net/news.asp?idnews=52517>

### REO Hub and ESTH Outreach

**Aug 30—Sept 4, 2010** REO Director Indran Amirthanayagam in orientation visit in Ecuador.

**Sept 8-10, 2010** REO Esteban Sandoval will attend CC Conference in Panama.

**Sept 13-17, 2010** REO Indran Amirthanayagam in orientation visit in Venezuela.

**Sept 13-24, 2010** REO Adriana Quevedo will undertake the ESTH Tradecraft Training Programme.

**Oct 6-7, 2010** REO Indran Amirthanayagam will participate in HUB meeting in Washington D.C.

**Oct 4-10, 2010** X Latin American Congress on Botany - La Serena, Chile

**Oct 11-16, 2010** IV COBER and II ECC International Fair 2010 on Clean Technologies, and Efficient Use of Energy, organized by FONAM —Lima, Peru. Key note addressed by REO Indran Amirthanayagam [inscrpciones@cober.pe](mailto:inscrpciones@cober.pe) [www.cober.pe](http://www.cober.pe)

### U.S. Climate Change Bills

HR 2996

**Rep. Norman Dicks [D-WA6] – Dep. of the Interior, Environment, and Related Agencies Appropriations Act, 2010**

Oct 30, 2009 – Became Public Law No: 111-88. Read about this law here: <http://www.govtrack.us/congress/bill.xpd?bill=h111-2996>

S. 1733

**Sen. John Kerry [D-MA] – Clean Energy Jobs and American Power Act.**

Sept 30, 2009 – Introduced (referred to Senate Environment and Public Works Committee)

Nov 5, 2009: Committee on Environment and Public Works. Ordered to be reported with an amendment in the nature of a substitute favorably.

Feb 2, 2010: Placed on Senate Legislative Calendar under General Orders.

Track this bill here: <http://www.govtrack.us/congress/bill.xpd?bill=s111-1733>

HR 2454

**Rep. Henry Waxman [D-CA30] – American Clean Energy and Security Act of 2009.**

May 15, 2009 – Introduced (referred to 15 different committees: <http://www.govtrack.us/congress/bill.xpd?bill=h111-2454&tab=committees>)

May 21, 2009 – Reported by committee (2 proposed amendments: <http://www.govtrack.us/congress/bill.xpd?bill=h111-2454&tab=amendments>)

June 26, 2009 – Passed House. Bill now goes to Senate vote.

July 7, 2009 – Read the second time. Placed on Senate Legislative Calendar under General Orders. Calendar No. 97. Track this bill here: <http://www.govtrack.us/congress/bill.xpd?bill=h111-2454>

The information contained herein was gathered from news sources from across the region, and the views expressed below do not necessarily reflect those of the Regional Environmental HUB Office or of our constituent posts.

Addressees interested in sharing any ESTH-related events of USG interest are welcome to do so. For questions or comments, please contact us at [quevedoa@state.gov](mailto:quevedoa@state.gov).